

# ABSTRACT

In an automobile on-board and/or portable telephone system capable of increasing the capacity of subscribers easily on the basis of changing of the information transmission bit rate,

spread codes obtained by multiplying orthogonal spread codes ( $m$  in number) by a pseudo-random noise series are assigned to individual channels in the same cell in such a manner that the orthogonal spread codes are multiplied by some types of pseudo-random noise series having different phases, thereby making it possible to maintain the number of channels in the same cell at a value which is a multiple of the number of the orthogonal spread codes. Through this, in the case where the transmission bit rate is halved as compared to the presently existing rate in the future, assignment of spread codes which are increased in number to as large a value as necessary can be achieved and the subscriber's capacity can be increased within a range in which the necessary quality can be maintained even when link paths for  $m$  or more channels are set up in one cell from the viewpoint of Signal to Interference Ratio.